

Chapter 1 - Purpose and Need

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Bonneville Power Administration (**BPA**)², a federal agency, owns and operates more than 15,000 circuit miles of electric **transmission lines**, including most of the **high-voltage** (115-**kilovolt [kV]** and above) lines in the Pacific Northwest. BPA's transmission system, known as the Federal Columbia River Transmission System (FCRTS), is operated in part, to "integrate and transmit the electric power from existing or additional federal or non-federal generating units" that are developed in the region.³ Depending on the location of a proposed power generation project being developed in the region, interconnection of the project to the FCRTS may be essential for effective delivery of power generated by the project to loads in the Pacific Northwest and elsewhere.

Two companies, PPM Energy, Inc. (PPM) and Portland General Electric (PGE)⁴ have proposed the construction and operation of two separate wind farm projects to generate power in Sherman County, Oregon. PPM's proposed project is referred to as the Klondike III Wind Project, and PGE's proposed project is referred to as the Biglow Canyon Wind Farm. Both proposed projects are in the vicinity of existing BPA transmission lines running along the lower Columbia River that are part of the FCRTS. As part of their proposals, both PPM and PGE have requested that BPA integrate power produced from their respective projects into the FCRTS at BPA's existing John Day 500-kV **Substation**.

² Words in bold and italics are defined in Chapter 9, Glossary and Acronyms.

³ 16 U.S.C. 838b.

⁴ In July 2006, Portland General Electric bought the rights to the Biglow Canyon Wind Farm from Orion Energy, LLC. References to Orion have been changed to PGE throughout this document to reflect this change.

1.1 BPA's Need for Action

BPA has adopted an Open Access Transmission Tariff for the FCRTS consistent with the Federal Energy Regulatory Commission's (FERC) *pro forma* open access tariff.⁵ Under BPA's tariff, BPA offers transmission interconnection to the FCRTS to all eligible customers on a first-come, first-served basis, with this offer subject to an environmental review, such as this **environmental impact statement** (EIS), under the National Environmental Policy Act (NEPA). BPA must also evaluate how any new interconnection services would maintain reliable service to existing and foreseeable future customers.

As discussed above, both PPM and PGE have submitted generation interconnection requests for their respective projects to BPA for interconnection with the FCRTS.⁶ Consistent with its tariff, BPA needs to respond to PPM's and PGE's requests and decide if it will provide interconnection for their projects into the regional transmission grid. More specifically, BPA needs to decide if it will enter into Large Generator Interconnection Agreements (LGIAs) to interconnect the proposed power generation projects into the FCRTS. BPA also needs to decide if it will provide transmission services to these projects through transmission service agreements.

In addition, granting an interconnection of these projects to the FCRTS would require that BPA construct and operate a new 230-kV transmission line and ancillary facilities from the projects to BPA's John Day 500-kV Substation. Accordingly, BPA needs to decide whether and where to construct such a line and other facilities.

1.2 BPA's Purposes

The purposes in the "purpose and need" statement are goals to be pursued while meeting the need for the project. These goals are important factors used to compare and contrast the alternatives evaluated in detail in the EIS. BPA will use the following purposes to choose among the alternatives:

- Maintain transmission system reliability to industry standards;
- Act consistently with BPA's statutory obligations;
- Continue to meet BPA's contractual obligations;
- Minimize environmental impacts;
- Minimize costs; and
- Encourage development of renewable energy resources.

⁵ Although BPA is not subject to FERC jurisdiction, BPA follows the open tariff as a matter of national policy. This course of action demonstrates BPA's commitment to non-discriminatory access to its transmission system and ensures that BPA will receive non-discriminatory access to the transmission system of utilities that are subject to FERC jurisdiction.

⁶ PPM's interconnection request, submitted to BPA in February 2004, is for up to 300 megawatts (MW) of the output from its proposed project; PGE's interconnection request, submitted to BPA in April 2002, is for up to 400 MW of the output from its proposed project.

1.3 Wind Project Siting Issues

The wind projects proposed by PPM and PGE would be in the state of Oregon. Because of the proposed generating **capacity** of each of the wind projects, both projects are under the jurisdiction of the Oregon Energy Facility Siting Council (EFSC), which has siting authority over the projects. Accordingly, PPM and PGE must each obtain a site certificate from Oregon EFSC before constructing or operating their respective projects.⁷ A site certificate is a binding agreement between the State of Oregon and an energy facility applicant that authorizes the applicant to construct and operate a facility on an approved site, incorporating all conditions imposed by the Council on the applicant. As part of the site certificate approval process, Oregon EFSC must find that the proposed projects meet certain standards, including environmental standards, pursuant to Oregon Administrative Rule (OAR) Chapter 345, Division 21, Section 045. The following describes the Oregon EFSC siting process to date for each of the proposed wind projects.

1.3.1 Klondike III Wind Farm

PPM proposes to build and operate the Klondike III Wind Project near the town of Wasco, in Sherman County, Oregon, next to its existing Klondike I and II wind projects. PPM proposes the construction and operation of up to 165 wind turbines, all on privately-owned land, as part of this project. The facility would have an electric generating capacity of about 289 megawatts (MW) (see request for amendment below).

PPM submitted an Application for Site Certificate (ASC) for its proposed wind project to Oregon EFSC on May 13, 2005. The ASC was deemed complete by Oregon EFSC on February 6, 2006. Oregon EFSC then issued public notice of the ASC and accepted comments. On June 30, 2006, Oregon EFSC issued a final order on PPM's ASC, as well as a Site Certificate. The Site Certificate authorizes construction and operation of the Klondike III Wind Project, subject to the terms and conditions set forth in the final order and Site Certificate. The final order is included as Appendix F to this EIS, and the Site Certificate is Appendix G.

After the final order and Site Certificate were issued, PPM requested an Amendment to the Site Certificate to ask the EFSC to approve the following:

1. Authorize realignment of some of the turbine strings and access roads; add an alternate location for the Operations & Maintenance building; and increase the area of temporary disturbance.
2. Authorize the use of turbines that would have a peak generating capacity of up to 2.4 megawatts for part of the project (about 62 of the proposed 165 turbine locations).

⁷ While Oregon EFSC has siting jurisdiction over the proposed wind projects, it has no involvement in the siting, construction or operation of BPA's transmission lines and appurtenant facilities.

3. Increase the authorized peak generating capacity of the facility from 272.25 megawatts to about 289 megawatts.
4. Modify site certificate conditions consistent with the changes described above.

This request is currently being reviewed by EFSC. The proposed changes in the project requested in the Amendment are further described, and the impacts evaluated, in this Final EIS. Review of the Amendment to PPM's Site Certificate by EFSC is expected to occur concurrently with BPA's EIS review process.

1.3.2 Biglow Canyon Wind Farm

PGE proposes to build and operate the Biglow Canyon Wind Farm in Sherman County, Oregon. PGE proposes the construction and operation of up to 225 wind turbines, all on privately-owned land, as part of this project. The facility would have an electric generating capacity of about 400 MW.

The Biglow Canyon ASC was submitted to Oregon EFSC on October 12, 2005. The ASC was deemed complete by Oregon EFSC on March 20, 2006. Oregon EFSC then issued public notice of the ASC and accepted comments. On June 30, 2006, Oregon EFSC issued a final order on the ASC, as well as a Site Certificate. The Site Certificate authorizes construction and operation of the Biglow Canyon Wind Farm, subject to the terms and conditions set forth in the final order and Site Certificate. The final order is included as Appendix H to this EIS, and the Site Certificate is Appendix I.

1.4 Scoping and Major Issues

Scoping refers to a time early in the development of an EIS when the public tells BPA what issues should be considered. On February 11, 2005, BPA published a **Notice of Intent** (NOI) in the Federal Register to prepare an EIS for BPA's proposed actions related to the proposed Klondike III Wind Project. This NOI also announced BPA's intent to hold a public scoping meeting on March 1, 2005 in Wasco, Oregon and set May 13, 2005 as the date for the close of the public scoping comment period. The NOI was posted on a BPA Web site created specifically for posting information and updates related to the EIS.

In addition to the NOI, three letters (dated February 11, 2005, February 24, 2005, and April 12, 2005) were mailed to people potentially interested in or affected by the proposal. These letters explained the proposal, the environmental impact statement process, and how to participate. A comment sheet was included so people could mail their comments to BPA.

BPA also purchased ads in local newspapers announcing the scoping meeting.

As indicated in the NOI, BPA held a public scoping meeting on March 1, 2005 in Wasco, Oregon to describe BPA's proposed action and accept any scoping comments. PPM representatives were also present at this meeting to discuss their proposed wind project. A second scoping meeting, also in Wasco, was held on April 27, 2005.

During the initial scoping period, BPA received comments suggesting that the Biglow Canyon Wind Farm be added to the EIS because it was planned to be built near the Klondike III Wind Project. Based on this public feedback and a request from PGE for interconnection, BPA decided to include interconnection of the Biglow Canyon Wind Farm in the EIS being developed for the interconnection of the Klondike III Wind Project. BPA then reopened and extended the scoping comment period for the EIS until January 5, 2006. BPA announced this extension by publishing a *Notice of Extension of Comment Period for an Environmental Impact Statement* in the Federal Register on December 6, 2005. BPA also mailed a letter on December 2, 2005 to people potentially interested in or affected by the proposal announcing the extended comment period, and posted notice of the extension on the BPA Web site for the EIS.

As a result of the scoping process, various written and verbal comments were collected. Comments covered many issues:

- Need for the project;
- Economic benefits and impacts;
- Adverse environmental impacts of a transmission line, including interruption of farming practices;
- Bird and bat collisions with the wind facilities;
- Visual impacts;
- Possible routes for the transmission line.
- Location of the substation facilities.

This is a partial list of issues identified from the comments received. All comments received were logged in, and forwarded to resource specialists to include in their environmental impact analyses for the EIS.

The DEIS was distributed to agencies, tribes, groups, individuals and The Dalles library in April 2006. A public review period was open until June 19, 2006. BPA held a public meeting on May 24, 2006 in Wasco, Oregon to accept public comments on the DEIS. At the meeting comments were recorded. During the comment period, three individuals, and two agencies submitted comment letters or forms. In total 58 comments were identified from the public meeting notes and comment letters and forms. Issues raised in the comments included the following:

- Where power from the proposed wind projects would be used;
- The range of reasonable alternatives;
- Impacts of the wind projects and transmission lines to birds and bat species;
- Mitigation for and monitoring of impacts to bird and bat species;

- Cumulative impacts of the proposed, existing and future wind projects on bird and bat species;
- Visual impacts of the transmission line and wind turbines;
- Support for the wind projects;
- Support for the Proposed Action;
- Proposed decommissioning of the wind projects.

Copies of comments made on the DEIS and BPA's responses to those comments are in Chapter 10.

EFSC also requested public comments during its site certification processes for the two proposed wind projects. EFSC received no comments related to BPA's actions for the proposed wind projects.

1.5 Organization of the EIS

The remainder of this EIS is organized as follows:

- Chapter 2 describes the proposed action and alternatives, including taking no action. It summarizes the differences among alternatives, especially in potential environmental impacts.
- Chapter 3 describes the existing environment that could be affected by the project. The existing environment includes the social and natural environment.
- Chapter 4 describes the possible environmental consequences of the proposed action and alternatives. An assessment of the direct, indirect, and cumulative effects on geology, soil, and seismicity, **hydrology** and water quality, vegetation and wildlife, fish, traffic and circulation, air quality, visual quality and aesthetics, cultural resources, land use plans and policies, socioeconomics, public services and utilities, and health and safety, including noise, is provided. Impacts can range from no or low impact to high impact.
- Chapter 5 discusses the licenses, permits and other approvals that must be obtained in order to implement the proposed action.
- Chapters 6 through 9 list the individuals who helped prepare the EIS, the references used, the individuals, agencies, and groups the EIS was sent to, and provides a glossary.
- Chapter 10 includes copies of comments made on the DEIS and BPA's responses to those comments.
- An index is included as Chapter 11.
- Supporting technical information is in appendices.